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ERROR DETECTION PROTOCOL

ABSTRACT OF THE DISCLOSURE

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A method and apparatus for providing a recent set of replicas for a cluster data resource within a cluster having a plurality of nodes. Each of the nodes having a group services client with membership and voting services. The method of the present invention concerns broadcasting a data resource open request to the nodes of the cluster, determining a recent replica of the cluster data resource among the nodes, and distributing the recent replica to the nodes of the cluster. The apparatus of the present invention is for providing a recent set of replicas for a cluster data resource. The apparatus has a cluster having a plurality of nodes in a peer relationship, each node has an electronic memory for storing a local replica of the cluster data resource. A group services client, which is executable by each node of the cluster, has cluster broadcasting and cluster voting capability. A database conflict resolution protocol ("DCRP"), which is executable by each node of the cluster, interacts with the group services clients such that the DCRP broadcasts to the nodes a data resource modification request having a data resource identifier and a timestamp. The DCRP determines a recent replica of the cluster data resource among the nodes with respect to the timestamp of the broadcast data resource modification request relative to a local timestamp associated with the data resource identifier, and distributes the recent replica of the cluster data resource to each node of the plurality of nodes.

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